Applicants: Steffen PETERS et al.

Appl. No. 10/810,890

Amendments

In the Claims:

1. (Original) A measuring device for monitoring a material and determining a parameter that is related to the dielectric properties of the material, comprising a product area for receiving the product, a first microwave resonator from which, in operation, microwaves can enter the product area, and a compensation device for compensating for environmental influences, the compensation device comprising a second microwave resonator which is shielded from the product area in respect of microwave radiation.

- 2. (Original) A measuring device according to claim 1, in which the compensation device is arranged to compensate for temperature variation.
- 3. (Original) A measuring device according to claim 1, which is arranged to determine the density of the product.
- 4. (Original) A measuring device according to claim 1, in which the product area is a channel for receiving a traveling strand of fibrous material.
- 5. (Original) A measuring device according to claim 1, in which the first resonator and the second resonator are of substantially the same construction.
- 6. (Original) A measuring device according to claim 1, in which the first resonator and the second resonator are at least partly filled with a dielectric.
- 7. (Original) A measuring device according to claim 1, in which the first resonator and the second resonator are arranged adjacent to each other, and separated by a space.
- 8. (Original) A measuring device according to claim 1, in which the first resonator and the second resonator form a modular unit.

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9. (Original) A measuring device according to claim 1, in which, in operation, the product

runs through the first resonator.

10. (Currently amended) A measuring device according to claim 1, in which the first

resonator and/or the second resonator are each a substantially completely shielded cavity

resonator with an opening for the admission of the product.

11. (Currently amended) A fibrous material processing machine having at least one fibre

processing element and further comprising a measuring device having a first microwave

resonator and a compensating device comprising a second microwave resonator, said the

measuring device being positioned at a measuring location and a said the processing element of

said the machine being adjustable in dependence of measurement values obtained at said the

measurement location.

12. (Currently amended) A machine according to claim 11, which is for processing textile

fibre material, and in which said the measuring device is arranged to monitor the density of a

textile fibre sliver and a said the processing element is adjustable for influencing properties of the

sliver.

13. (Original) A machine according to claim 11, the machine being a carding machine, and

the measurement device being arranged near a delivery outlet of the carding machine.

14. (Currently amended) A machine according to claim 11, which is a draw frame, a said the

measurement device being arranged near a delivery outlet of the draw frame.

15. (Currently amended) A machine according to claim 11, which is a draw frame, said the

draw frame comprising a first said the measurement device in an inlet region and a second said

measurement the compensating device in an outlet region.

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16. (Original) A machine according to claim 15, comprising a machine control and regulation

device to which each measurement device is connected.

17. (Currently amended) A machine according to claim 16, further comprising an actuation

device for a said the processing element, the actuation device being controllable by the control

and regulation device in dependence on measurement data received from the first measurement

device and/or measurement data received from the second measurement device.

18. (Currently amended) A method of controlling the density of fibre material in a textile

processing machine, comprising monitoring the fibre material at a measuring location using a

device comprising a first resonator and a compensation device comprising a second resonator,

and adjusting the condition of a processing step in said the machine in dependence on measured

values obtained by the measuring device.

In the Drawings:

Pursuant to the Examiner's objection to Figure 5, the numbering change has been made as

directed. A corrected drawing sheet for Figure 5 is included herewith.

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